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Title : Florida Manatees in Hot Water (or Not)

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Abstract : The Florida power industry and the Florida manatee (*Trichechus manatus latirostris*) population have been linked for over 50 years. This link was forged by manatees becoming habituated to industrial thermal discharges and using them as life sustaining winter refuges. New challenges facing Florida's power-generating industry and, by default, the Florida manatee, include the retirement of older plants, deregulation of the Florida power environmental regulations. When and how these occur will play a significant role in the recovery of the Florida manatee population.

Currently, there are thirteen power plants with thermal discharges that create a network of warm-water refugia used by manatees. Although the exact number of manatees is unknown, it is estimated that more than 50% of the manatee population is counted at power plant discharges on a cold winter day. Reynolds (2000) noted that, "manatee use of warm-water discharges seems to be a paradox. Over time, they show great ability to learn to use resources, such as artificial warm-water refugia that did not elimination of such resources by simply waiting for the resources in question to reappear." In at least one event, this behavior proved fatal for several manatees in northeast Florida when a regionally important warm-water refuge was eliminated (Deutsch et al. 2000b).

Working against an uncertain time frame that could be as short as several years or as long as several decades, a task force has been convened to help ensure that manatees are protected during this critical period. We discuss the many conflicts and potential solutions to this problem.